

REMARKS

Information Disclosure Statement:

Applicant thanks the Examiner for initialing and returning the Form PTO/SB/08 A & B filed on January 18, 2002, thus indicating that all of the references listed thereon have been considered.

Election Restriction:

Applicant also thanks the Examiner for confirming that claims 1-17 and 30-32 have been withdrawn from consideration, and that the election was made without traverse. Applicant confirms this election.

Allowable Subject Matter:

Applicant sincerely thanks the Examiner for indicating that although claim 29 has been objected to, this claim would be allowable if written in independent form.

Claim Rejections:

Claims 18-29 are all of the claims that have been examined in the present application, and currently claims 18-28 stand rejected.

35 U.S.C. § 103(a) Rejection - Claims 18-20, 23-25 and 27-28:

Claims 18-20, 23-25 and 27-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,939,137 to Kuck et al. In view of the following discussion, Applicant respectfully traverses the above rejection.

As shown in Figure 2, Kuck discloses placing a transducer 48 in the coating tank of a fiber coater. The transducer, coupled with curved portions 52, creates a meniscus 56 at the point where the fiber 24 enters the coating. The creation of this meniscus 56 is to prevent the entry of

air bubbles into the coating along with the fiber. The Examiner asserts that this configuration renders the present invention obvious. Applicant disagrees.

In the present invention, an ultrasonic transducer is used to aid in the curing process of the coating on the fiber. However, Applicant submits that the disclosure in Kuck has little, or nothing, to do with the curing of the coating, except that the Kuck system aids in the prevention of air entering the coating.

The Examiner attempts to cure this deficiency in Kuck by saying that the use of the transducer 48, in Kuck has an “effect” on the curing of the coating in Kuck, as it reduces the presence of air bubbles, etc., in the coating. Applicant submits that this use of Kuck, by the Examiner, is without merit, and has no relevance to the claimed invention.

Namely, Applicant notes that the present invention does not claim that the transducer has an “affect” on the coating, but that the “curing of [the] coating is at least partially effected by [the] ultrasound.” Within the context of this application and the present invention, these terms can not be used synonymously. In the present invention, at least some of the curing of the coating is “effected” by the ultrasound. Stated differently, in the present invention at least some of the curing of the coating is brought about by, or caused by, the ultrasound. This is simply not the case in Kuck.

In fact, one of ordinary skill in the art would understand that it is undesirable to have or cause curing within the coating tank, as it would have a detrimental affect on the coating material within the tank. Further, there is no motivation, whatever, in Kuck to begin the coating curing process within the coating tank.

Applicant submits that having an “affect” on the coating is not “effecting” the curing of the coating.

In view of the foregoing, Applicant submits that the above combination fails to teach or suggest each and every feature of the present invention, as set forth in claim 18. As such, the Examiner has failed to establish a *prima facie* case of obviousness with respect to this claim, as required under 35 U.S.C. § 103(a). Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of claim 18. Further, as claims 19-20, 23-25 and 27-28 depend on claim 18, Applicant submits that these claims are also allowable, at least by reason of their dependence.

35 U.S.C. § 103(a) Rejection - Claim 21:

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuck in view of U.S. Patent No. 5,037,763. However, because claim 21 depends on claim 18, Applicant submits that this claim is also allowable, at least by reason of its dependence.

35 U.S.C. § 103(a) Rejection - Claims 18-22, 24 and 26:

Claims 18-22, 24 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 4-175245 to Kobayashi et al. In view of the following discussion, Applicant respectfully traverses the above rejection.

In reviewing the Kobayashi reference, Applicant submits that Kobayashi is no more relevant than the Kuck reference, discussed above. Specifically, Kobayashi discloses vibrating a quartz tube with an ultrasonic frequency to prevent any aerosols of the coating emitted during the curing process, from adhering to the tube. However, Kobayashi clearly states that the coating is

cured by UV rays. In fact, the rationale behind preventing the aerosols from adhering to the quartz tube is to ensure the UV rays are not blocked.

Again, Applicant submits that the Examiner is using the terminology “affect” and “effect” interchangeably. As indicated above regarding the Kuck reference, the mere fact that the method and apparatus in Kobayashi “affects” the curing process, does not mean that the cure is being “effected”, or caused, by the ultrasonic sound. It is for at least this reason that Applicant submits that Kobayashi fails to teach or suggest each and every feature of the claimed invention.

In view of the foregoing, Applicant submits that the above combination fails to teach or suggest each and every feature of the present invention, as set forth in claim 18. As such, the Examiner has failed to establish a *prima facie* case of obviousness with respect to this claim, as required under 35 U.S.C. § 103(a). Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of claim 18. Further, as claims 19-22, 24 and 26 depend on claim 18, Applicant submits that these claims are also allowable, at least by reason of their dependence.

35 U.S.C. § 103(a) Rejection - Claims 18, 19 and 24-25:

Claims 18, 19 and 24-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,037,763 to Petisce in view of Japanese Reference No. 57-092549 to Komura et al. With regard to this rejection, we have the following comments.

The Petisce reference indicates that a “coating material may be cured by thermal, electron beam, microwave or ultrasonic energy or as in the preferred embodiment with ultraviolet

energy.” Col. 5, lines 29-31. However, Petisce provides no further instruction regarding using “ultrasonic energy” to aid in the curing of the coating.

To aid in the rejection and cure the deficiencies of Petisce, the Examiner is relying on the Komura reference. Komura teaches using ultrasonic wave energy to aid in curing a resin 13 which is impregnated with glass filaments 12 and an optical fiber 14. The resin 13 is then cured by passing by an ultrasonic horn 8, which emits ultrasonic wave energy. The resin 13 is used to keep the filaments 12 parallel with the fiber 14. However, the fiber is manufactured prior to being mated with the resin 13 and filaments 12. As such, there is no disclosure regarding curing a coating of an optical fiber. Komura only teaches curing a resin 13 going over a coated fiber. There is no teaching regarding the coating of the fiber.

Therefore, it would not have been obvious to combine the references as suggested by the Examiner. Namely, because Komura is directed to curing a resin 13 within the filaments 12, one of ordinary skill in the art would not have used Komura to cure a coating for an optical fiber.

In view of the foregoing, Applicant submits that the above combination fails to teach or suggest each and every feature of the present invention, as set forth in claim 18. As such, the Examiner has failed to establish a *prima facie* case of obviousness with respect to this claim, as required under 35 U.S.C. § 103(a). Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of claim 18. Further, as claims 19 and 24-25 depend on claim 18, Applicant submits that these claims are also allowable, at least by reason of their dependence.

RESPONSE UNDER 37 C.F.R. § 1.111
Application No. 09/987,673

Our Ref: A8126
Art Unit: 1734

Conclusion:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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